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Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	**Applicant(s)**
Office Action Summary		09/839,055	DEBBINS ET AL.
		Examiner	**Art Unit**
		Mary J. Steelman	2122

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *8/15/01,10/18/01,5/7/02.*
2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
    closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-20* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *18 October 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All b)☐ Some * c)☐ None of:
    1.☐ Certified copies of the priority documents have been received.
    2.☐ Certified copies of the priority documents have been received in Application No. _____.
    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
        application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
     Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-20 are pending.

Drawings

2.   Drawings submitted 10/18/2001 have been received.

3.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

FIG. 3, #67 is not in the Specification.

FIG. 7, #30, is not in the Specification.

Corrected drawing sheets, or amendment to the specification to add the reference character(s) in the description, are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference character(s) mentioned in the description:

FIG. 7, #310 & # 326 are not in the Drawing.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended.

The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37

CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not

accepted by the examiner, the applicant will be notified and informed of any required corrective

action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5.   The use of trademarks (Examples: Intel, JAVA, Ethernet) has been noted in this

application. It should be capitalized wherever it appears and be accompanied by the generic

terminology.

    Although the use of trademarks is permissible in patent applications, the proprietary

nature of the marks should be respected and every effort made to prevent their use in any manner

which might adversely affect their validity as trademarks.

Claim Objections

6.   Claim 20 is objected to because of the following informalities:

Claim 20, line 2, recites "…step of and translating…", should be --…step of translating…--.

Delete 'and'. Appropriate correction is required.

    Claim 13, line 10 recites, "…user entered through the input device to select graphically

linked icons…", should be --user entered through the input device to select and graphically link

icons…--. Add the word 'and' between 'select' & 'graphically'.

    Claim 20, line 22, recites, "step of and translating the application program…", should be

--step of translating the application program…--. Delete the word 'and'.

Claim Rejections - 35 USC § 112

7.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7.35.01 Trademark or Trade Name as a Limitation in the Claim

Claims 8, 11, 12 and 18 contain the trademark/trade name JAVA / Internet / Ethernet. Where a

trademark or trade name is used in a claim as a limitation to identify or describe a particular

material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second

paragraph.

See Ex parte Simpson, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain

since the trademark or trade name cannot be used properly to identify any particular

material or product. A trademark or trade name is used to identify a source of goods,

and not the goods themselves. Thus, a trademark or trade name does not identify or

describe the goods associated with the trademark or trade name. In the present case,

the trademark/trade name is used to identify/describe byte code programming language / network

and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9.   Claims 1-12, 17, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable

over US Patent 5,850,548 to Williams, in view of US Patent 6,718,533 B1 to Schneider et al.

Per claim 1:

-a component library for storing components written in an object oriented programming

language, wherein one or more component includes at least one connection point for receiving an

input or providing an output and wherein each component provides a predefined function;

(Williams: Col. 2, line 26, "...such as C++ (object oriented programming language)...", col. 2,

lines 34-36, "...programs are constructed entirely out of components which communicate via

connections (connection points for receiving an input or providing an output)", col. 3, lines 61-

63, "Library: A special component which contains the total set of components available to the

system programmer. Arranged in groups for easy access", col. 7, lines 66-67, "the system

provides a large set of general purpose components for use in user programs.", col. 5, lines 35-

36, "The system employs 'components' for performing work (component provides a predefined

function) in the system")

-a graphic building area, wherein a user selectively moves components from the component

library to the graphic building area and graphically links at least one connection point from a

selected component to a connection point of another of the selected components, the graphical

link providing a software reference to each of the selected components to define an executable

application;

(Williams Col. 2, lines 20-25, "A development system of the present invention comprises a

visual programming environment (graphic building area) ...employs 'components' for

performing work in the system...", 29-30, "Various components are linked together by

establishing 'connections' between their ports...", col. 6, lines 49-65, "...the user first creates a

Blank Composite Component...The user then proceeds to select (e.g. double-click) on the

Component to "jump inside' the component for creating sub-components...These sub-

components correspond to the main functional areas of this sample program. The user may then

proceed to choose one of the newly created sub-components (select component) ...", col. 5, lines

46-54, "Various components are linked together by establishing 'connections' between their

ports...programs are constructed entirely out of components which communicate via

connections.", col. 6, lines 26-29, "Messages arriving at Port 301 of "Example" are sent to the

Port of Component A (i.e., Port 311) (linked connection points / software reference to each of the

selected components to define an executable application). If during processing of the message

Component A generates a new message, that new message (software reference to selected

component) is sent to Component B via Connection 313.")

Williams disclosed a visual development environment for programming with components

and connections. Williams failed to disclose that the program could be used for medical imaging

and that the completed application could be serialized and downloaded for execution.

However, Schneider disclosed a development tool using object oriented modeling that

(col. 4, lines 44-45) "supports design; development; execution; test and maintenance. At col. 4,

lines 52-60, "...the present invention is advantageous for developing software for real-time

electromechanical systems...can also be used for ...medical imaging...." Schneider disclosed,

col. 10, lines 7-11, "FIG. 2 illustrates an example of a real-time application according to one

embodiment of the present invention. In a typical scenario, a real-time system is created on a

development station using development tool and is then downloaded to a real-time computer

(download the executable application to the medical imaging system) for execution." Also, col.

31, lines 49-55, "Once a system diagram has been created...the compiled components are loaded

onto the real-time computer...These compiled code files provide executable code for each of

these components." Schneider disclosed, col. 9, lines 51-53, "Development tool may be

implemented in any suitable programming language; the JAVA programming language (object

oriented) has been found to work well." Serialization is the process of creating a byte stream for

the purpose of transmitting byte code and thus would be obvious when transmitting code written

in JAVA programming language in the download process.

Therefore, it would have been obvious, to one of ordinary skill in the art, at the time of

the invention to have modified Williams' invention of program development to include

downloading a serialized component when developing an application that could include medical

imaging, as taught by Schneider because both inventions deal with application development

using components, allowing for reusable software (Schneider: Col. 5, line 65) and providing an

(Schneider: Col. 6, lines 1-2) "intuitive approach to developing systems..."

Per claim 2:

-components are displayed as icons.

(Williams: Col. 5, lines 21-24, "During or after cursor movement, the user may generate user-

event signals (e.g., mouse button 'clicks' and "drags") for selecting and manipulating objects...",

col. 6, lines 64-65, "...Processing Component has a Port 431 and a Port 433, each represented by

a port icon." See FIGs. 4C & 4D.)

Per claim 3:

-container for storing one or more components in a hierarchical relationship.

(Williams: Col. 5, lines 33-35, "The development system of the present invention comprises a visual programming environment based on a high level hierarchical data flow model.", col. 6, lines 49-50, "...the user first creates a Blank Composite Component (container)...", col. 7, lines 11-13, "...the user has added ...Component by dragging it from a standard library of the system..." The Blank Composite Component container is filled with components dragged from the library.)

Per claim 4:

-the container comprises an icon in the graphic building area.

(Williams: Col. 6, lines 65-67, "...connecting the components, using the port icons...")

Per claim 5:

-a property display which enables a user to verify the properties of the component icon by selecting the icon with an input device.

(Williams: Col. 6, lines 53-63, "The user then proceeds to select on the Component to "jump inside" the component for creating sub-components", col. 8, lines 47-49, "Property inspection may also be used to change the default value of a port." See FIGs. 7D & 7E: (col. 2, lines 65-67) "bitmap screen shots illustrating connection of a 'Value' property of a component to a port of a sub-component.")

Per claim 6:

-relationships between the container and the components are displayed with graphical links.

(Williams: Col. 7, lines 15-17, "The user has proceeded to connect together the ports of all the

sub-components in the Processing component..." See FIG. 3B, "bitmap illustrating the

establishing of a connection between two components, via component ports. See FIG 9B,

"bitmap screen shot showing a detailed view of a first region, the 'structure pane,' from the

Program Viewer of FIG 9A." Components are placed / dragged into container.)

Per claim 7:

-the connection points of the components are displayed as icons linked to the components.

(Williams, Col. 6, lines 65-67, "...represented by a port icon...the user may proceed to create

ports for connecting the components, using the port icons.")

Per claim 8:

Williams disclosed a visual development environment for object oriented programming

with components and connections. Williams failed to disclose that the program could be used

for medical imaging in a byte code language, JAVA.

However, Schneider disclosed a development tool using object oriented modeling that

(col. 4, lines 44-45) "supports design; development; execution; test and maintenance. Schneider

disclosed:

-The system as recited in claim 1 in which the object-oriented programming language is JAVA and the medical imaging system is programmed to translate the executable application to at least one of a C or a C++ program for real-time execution.

(Schneider: Col. 9, line 52, "...the JAVA programming language has been found to work well.", col. 4, lines 50-60, "...the present invention is applicable to...medical imaging...". Schneider disclosed that the created program is compiled for downloading over a network. It is well known that compiled code can be native (C code) code for executing.)

Therefore, it would have been obvious, to one of ordinary skill in the art, at the time of the invention to have modified Williams' invention of graphical object oriented program development to include JAVA programming language and a medical imaging application translated to C for execution as taught by Schneider because both inventions deal with graphical application development using components, allowing for reusable software (Schneider: Col. 5, line 65) and providing an (Schneider: Col. 6, lines 1-2) "intuitive approach to developing systems..."

Per claim 9:

Williams disclosed a graphical object oriented program development system, programmed with components and linked ports. He failed to disclose:
-the components include a serialization component, the serialization component allowing a user to transfer code from the application development system to an application server.

However, Schneider disclosed a graphical development tool using object oriented modeling. Schneider disclosed, col. 10, lines 7-11, "FIG. 2 illustrates an example of a real-time

application according to one embodiment of the present invention. In a typical scenario, a real-time system is created on a development station using development tool and is then downloaded to a real-time computer (transfer code from the application development system to an application server) for execution." Also, col. 31, lines 49-55, "Once a system diagram has been created...the compiled components are loaded onto the real-time computer...These compiled code files provide executable code for each of these components." Schneider disclosed, col. 9, lines 51-53, "Development tool may be implemented in any suitable programming language; the JAVA programming language has been found to work well." Serialization is the process of creating a byte stream for the purpose of transmitting byte code and thus would be obvious when transmitting code written in JAVA programming language in the download process.

Therefore, it would have been obvious, to one of ordinary skill in the art, at the time of the invention to have modified Williams' invention of graphical program development to include downloading a serialized component when developing an application, as taught by Schneider because both inventions deal with application development using components and linked ports, allowing for reusable software (Schneider: col. 5, line 65) and providing an (Schneider: col. 6, lines 1-2) "intuitive approach to developing systems..."

Per claim 10:

Williams disclosed a graphical object oriented program development system, programmed with components and linked ports. He failed to disclose:
-the component library further comprises an external communications link for receiving components and applications transmitted from an external central processing unit.

However, Schneider disclosed: Col. 21, lines 30-37, "FIG. 11B illustrates...an

embodiment for repository 135. Repository (library) may be implemented in any suitable

database or directory structure and preferably stores all components available...for creating a

system diagram. Components may have arrived in repository by way of interface definition tool

or they may have been predefined and supplied by a vendor (components received from external

sources) or third party..."

Therefore, it would have been obvious, to one of ordinary skill in the art, at the time of

the invention to have modified Williams' invention of graphical program development to include

components received from an external source, as taught by Schneider because both inventions

deal with application development using components and linked ports, allowing for reusable

software (Schneider: col. 5, line 65), including vendor supplied components, and providing an

(Schneider: col. 6, lines 1-2) "intuitive approach to developing systems..."

Per claims 11 & 12:

Williams disclosed a graphical object oriented program development system,

programmed with components and linked ports. He failed to disclose:

-the external communication link comprises an Internet link / Ethernet link.

However, Schneider disclosed: Col. 10, lines 21- 24, "...components...are downloaded

over a network connection...", col. 39, lines 31-40, "CPU optionally may be coupled to another

computer or telecommunication network using network interface. With such a network

interface, it is contemplated that the CPU might receive information fro the network, or might

output information to the network..."

Therefore, it would have been obvious, to one of ordinary skill in the art, at the time of

the invention to have modified Williams' invention of graphical program development to include

an external communication link comprised of an Internet / Ethernet link, as taught by Schneider

because both inventions deal with application development using components and linked ports,

allowing for reusable software (Schneider: col. 5, line 65), , and providing an (Schneider: col. 6,

lines 1-2) "intuitive approach to developing systems..." Schneider expanded on Williams'

invention to disclose network transmission to an application server, a feature well known in the

art.

Per claim 17:

-A method for providing off-line programming of applications, the method comprising the

following steps:

(Williams: FIG. 2A, and col. 2, lines 43-44, "FIG 2A is a block diagram of a software system

for controlling the operation of the computer of FIG. 1." Williams provided a Visual

Development Environment. Williams' development system was off line. No network

connection was involved.)

-storing a library of components and a graphical applications development system on a

development computer;

(Williams: Col. 7, lines 11-13, "...user has added a ...component by dragging it from a standard

library of the system...", col. 7, lines 66-67, "the system provides a large set of general purpose

components for use in user programs.")

-graphically creating an application program or application program segment on the development

computer;

(Williams: Col. 2, lines 20-30, "A development system of the present invention comprises a

visual programming environment...The system employs "components" for performing work in

the system...components are linked together by establishing 'connections' between their

ports..." Also, col. 5, lines 11-15, "Window includes a client area for displaying and

manipulating screen objects, such as graphic object and text object...")

Williams failed to disclose a medical imaging application and persisting the application

program and transmitting the application program to the medical imaging system through a

communication link. However, Schneider disclosed that a development tool could be used to

create (col. 4, lines 45-46), transmit (col. 10, lines 9-10), and save for execution, a medical

imaging application (col. 4, line 60).

-storing the library of components and the graphical applications development system in the

medical imaging system;

(Schneider: Col. 19, lines 5-10, "Repository (library) is any suitable database on a computer for

storing components..." Col. 4, lines 57-60, "...the present invention ...can also be used for

...medical imaging...")

-persisting the application program;

(Schneider: Col. 10, lines 7-11, "FIG. 2 illustrates an example of a real-time application according to one embodiment of the present invention. In a typical scenario, a real-time system is created on a development station using development tool and is then downloaded to a real-time computer (download, (persisting) the executable application to the medical imaging system) for execution." Also, col. 31, lines 49-55, "Once a system diagram has been created...the compiled components are loaded (transmitted for storage) onto the real-time computer...These compiled code files provide executable code for each of these components.")

-transmitting the application program from the computer to the medical imaging system through a communications link.

(Schneider: Col. 10, lines 7-11, "FIG. 2 illustrates an example of a real-time application according to one embodiment of the present invention. In a typical scenario, a real-time system is created on a development station using development tool and is then downloaded to a real-time computer (download, (transmitting) the executable application to the medical imaging system) for execution." Also, col. 31, lines 49-55, "Once a system diagram has been created...the compiled components are loaded (transmitted for storage) onto the real-time computer...These compiled code files provide executable code for each of these components.")

Therefore, it would have been obvious, to one of ordinary skill in the art, at the time of the invention to have modified Williams' invention of program development to include downloading a serialized component after developing an application that could include medical imaging, as taught by Schneider because both inventions deal with application development

using components, allowing for reusable software (Schneider: col. 5, line 65) and providing an

(Schneider: col. 6, lines 1-2) "intuitive approach to developing systems..." Downloading an

application to an application server in a serialized fashion is well known in the art.

Per claim 19:

Williams disclosed a system for visual object oriented program development. Williams failed to

disclose:

-the step of downloading the application to one or more application processing boards in the

medical imaging system for execution.

However, Schneider disclosed: Col. 4, lines 50-60, "...the present invention is applicable

to...medical imaging (medical imaging system)...". Col. 9, lines 51-55, "Development tool may

be implemented in...the JAVA programming language...", col. 10, lines 7-11, "...In a typical

scenario, a real-time system (application) is created on a development station using development

tool and is then downloaded to a real-time computer for execution...", col. 10, line 21-24, "Once

compiled, the real-time system code including individual compiled components...are

downloaded over a network connection...to the real-time computer (download application to one

or more application processing boards in medical imaging system for execution)." Schneider's

invention included developing a medical imaging application and downloading it to a real-time

computer (application processing board) for execution.

Therefore, it would have been obvious, to one of ordinary skill in the art, at the time of

the invention to have modified Williams' invention of program development to include

downloading a medical imaging application, as taught by Schneider because both inventions deal

with application development using components, allowing for reusable software (Schneider: col. 5, line 65) and providing an (Schneider: col. 6, lines 1-2) "intuitive approach to developing systems..."

Per claim 20:

Williams disclosed a graphical programming environment, but failed to disclose:

-the step of translating the application program to a low level programming language for execution.

However, Schneider disclosed: Col. 21, lines 18-27, "Based upon this graphical creation of a final system diagram suing lower level components, the various diagram files and system diagram file are loaded into repository...Once system diagram has been created and the diagram files have been loaded into the repository, the intelligent control system is ready to be loaded into real-time computer to begin execution..." Also, col. 31, lines 49-51, "Once a system diagram has been created...the compiled (translate the created system diagram into compiled code, a low level programming language suitable for execution) components are loaded onto the real-time computer."

Therefore, it would have been obvious, to one of ordinary skill in the art, at the time of the invention to have modified Williams' invention of program development to include downloading a medical imaging application, as taught by Schneider because both inventions deal with application development using components, allowing for reusable software (Schneider: col. 5, line 65) and providing an (Schneider: col. 6, lines 1-2) "intuitive approach to developing systems..."

10.   Claims 13-16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US

Patent 5,850,548 to Williams, in view of US Patent 6,718,533 B1 to Schneider et al., and further

in view of US Patent 5,668,998 to Mason et al.

Per claim 13:

Williams discloses a system and methods for visual program development. Schneider

disclosed a system that could be used for medical imaging. The combination failed to disclose

that the application could be for a magnetic resonance imaging system.

However, Mason disclosed a (Abstract, lines 1-5) toolkit framework of "objects which

enable rapid creation of application computer programs." Col. 32, lines 34-37, "The messaging

subsystem provides composite information objects types...magnetic resonance...

-a memory for storing a library comprising components written in an object-oriented

programming language;

(Williams: Col. 3, lines 61-63, "Library: A special component which contains the total set o

components available...", col. 5, lines 38-39, "Components can be constructed with a

conventional programming language, such as C++ (object oriented)...", col. 9, lines 36-38,

"...Library window displays a tabbed palette of Library components which the user may 'drag-

and-drop"...")

-a workstation having a display, an input device and a processor programmed to perform

application development functions, the application development program including:

(Williams col. 4, lines 25-30, "...computer system...which includes...processor...input/output

controller...a pointing device...a display device...", col. 4, lines 63-65, "System also includes a

Visual Development System (application development program) of the present invention for

aiding users in the task of creating software programs.")

-a graphical building area for displaying icons representing components in the

component library and responsive to directions from a user entered through the input device to

select and graphically link icons to assemble the components.

(Williams: Col. 5, lines 11-18, "Window includes a client area for displaying and manipulating

screen objects (graphical building area)...selecting and otherwise invoking screen objects of

interest.", col. 9, lines 14-21, "...the Visual Development System of the present invention

includes a development interface or work surface...includes a main window...a Library

Window...user selectable menu choices ...", 36-38, "...Library window displays a tabbed

palette of Library components which the user may "drag-and-drop" (icons) into his or her

program application.", 42-54, "...user begins by creating a Visual Component...selecting (select

components) Window Component...The Visual Component Window displays graphically the

window component...", col. 10, lines 13-18, "...user selected the 'Visual Component' object

from the Library, Visual Component1 was created...user selected the 'Window" component

from the library, Window1 was created...Component Manager Window displays a

VisualComponent1 node and a Window1 node...", col. 12, lines 30-35, "...simply connect up

the two components (link components). As shown in FIG. 8E, this can be done simply by

dragging (with a mouse pointer) from one component to the other component."

-and for persisting the selected components to form an application program.

(Williams: Col. 1, lines 14-16, "The present invention relates...to systems and methods for

visually developing programs executable by computers." Components are used to form an

executable application program (persist an application program).)

Therefore, it would have been obvious, to one of ordinary skill in the art, at the time of

the invention to have modified the combined Williams' and Schneider invention of program

development to include magnetic resonance imaging, because all inventions deal with

application development using components, allowing for reusable software (Schneider: col. 5,

line 65) and providing an (Schneider: col. 6, lines 1-2) "intuitive approach to developing

systems..." Schneider provided for medical imaging and magnetic resonance imaging (MRI) is

merely a specific type of medical imaging.

Per claim 14:

Williams disclosed a visual object oriented development environment for programming

with components. Williams failed to disclose:

-the persistence is performed using a serialization mechanism which stores the application

program.

However, Schneider disclosed: Col. 10, lines 7-11, "FIG. 2 illustrates an example of a real-time application according to one embodiment of the present invention. In a typical scenario, a real-time system is created on a development station using development tool and is then downloaded to a real-time computer (download the executable application to the medical imaging system) for execution." Also, col. 31, lines 49-55, "Once a system diagram has been created...the compiled components are loaded (transmitted for storage) onto the real-time computer...These compiled code files provide executable code for each of these components." Schneider disclosed, col. 9, lines 51-53, "Development tool may be implemented in any suitable programming language; the JAVA programming language has been found to work well." Serialization is the process of creating a byte stream for the purpose of transmitting byte code and thus would be obvious when transmitting code written in JAVA programming language in the download process.

Therefore, it would have been obvious, to one of ordinary skill in the art, at the time of the invention to have modified Williams' invention of program development to include downloading a serialized component after developing an application that could include medical imaging, as taught by Schneider because both inventions deal with application development using components, allowing for reusable software (Schneider: col. 5, line 65) and providing an (Schneider: col. 6, lines 1-2) "intuitive approach to developing systems..."

Per claim 15:

-the icons in the graphical building area include a property area, the property area being activated

by the input device to display properties associated with the selected component in the properties

area.

(Williams: Col. 9, lines 27-31, Component Inspector Window provides specific information

about a component. In particular, when a component is selected by the user, the Component

Inspector displays information about the specific properties and methods of that selected

component", lines 60-62, "...Component Inspector Window is updated to display specific

information about the currently selected component.")

Per claim 16:

-the application development program also includes a property editor which enables a user to

input data through the input device to change property values of a component.

(Williams: Col. 8, lines 47-49, "Property inspection may also be used to change (use editor to

change property value) the default Value of a port", col. 9, lines 65-67, "The user can easily

modify a property by clicking on the desired property and entering in a new Value.")

Per claim 18:

Williams disclosed a system for visual program development. Schneider disclosed a system that

could be used for medical imaging. The combination failed to disclose:

-the step of transmitting comprises transmitting compressed data over an Internet link.

However, Mason disclosed a (Abstract, lines 1-5) toolkit framework of "objects which

enable rapid creation of application computer programs." Col. 32, lines 34-37, "The messaging

subsystem provides composite information objects types…magnetic resonance… (a medical imaging application). Mason disclosed (col. 11, lines 25-52), "The toolkit supports services as defined in the DICOM standard…In general, the major DICOM services provided by the toolkit framework of the present invention comprise: general association…buffer movement into and out of an open association; message element construction via stream parsing or application creation…command and response send/receive; information object construction…remote actioning…wide-area network support for transport (transmitting over an Internet link) and support query/retrieve…" Also, Mason disclosed compressed data at col. 5, lines 57-63, "The association layer implements the negotiation policy outlined by the DICOM standard. A user may configure multiple transfers…enabling an application to transfer images…(e.g. compress high-resolution images…)")

Therefore, it would have been obvious, to one of ordinary skill in the art, at the time of the invention to have modified the Williams' & Schneider graphical object oriented program development combination to include Mason's application framework, specific to DICOM (Digital Imaging and Communication in Medicine), that discusses compression during network transmission because all inventions deal with application development using components, and Mason included details regarding compression during transmission, a feature well known in the art, useful for minimizing network traffic.

Conclusion

11.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
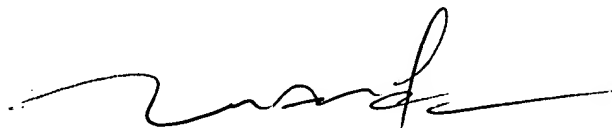
12.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Steelman, whose telephone number is (703) 305-4564. The examiner can normally be reached Monday through Thursday, from 7:00 A.M. to 5:30 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam can be reached on (703) 305-4552.

The fax phone number is (703) 872-9306 for regular communications and for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Mary Steelman

06/22/2004

TUAN DAM
SUPERVISORY PATENT EXAMINER